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REMARKS

In the Office Action mailed June 3, 2003, the Examiner rejected Claims 53-55, 59, 65, 68, 69 and 71-76. In the present Amendment and Response to Office Action, Applicants have amended independent Claims 53, 65 and 72. Applicants respectfully request full entry of the amendments and full consideration of the remarks contained herein.

Amendments to the Claims

Applicants have amended the claims to clarify further the subject matter that Applicants regard as the invention. In particular, Applicants have amended Claims 53, 65 and 72 to recite "a chemical vapor deposition chamber," rather than "a chamber." Support for this language can be found in the Application as originally filed. *See, e.g.*, the Application, pp. 1-2, 5 and 9-12. In addition, Applicants have amended Claim 65 to recite "substrate," rather than "subtrate" to correct an obvious typographical error. Consequently, Applicants respectfully submit that the amendments add no new matter and are fully supported by the Application as originally filed.

Objections to the Drawings

The Examiner has objected to the drawings under 37 C.F.R. § 1.83(a). The Examiner stated that "the 'actively cooled thermal exchange member' in Claims 65 and 76 must be shown or the feature(s) canceled from the claim(s)." Applicants submit that the drawings do show the "actively cooled thermal exchange member" of Claims 65 and 76. Applicants note that such a "thermal exchange member" is illustrated and identified by numeral 18 in Figures 1A-1C and 2A-2B. In addition, Applicants note that the "thermal exchange member" identified by numeral 18 can be "actively cooled," as discussed on pages 5-7. Consequently, Applicants respectfully submit that the objection is overcome.

Objections to the Claims

The Examiner has objected to Claim 65 for incorrectly spelling "substrate" as "subtrate." As noted above, Applicants have amended Claim 65 to correct this typographical error. Thus, Applicants submit that the objection is overcome.

Rejections Under 35 U.S.C. § 112, second paragraph

The Examiner has rejected Claims 53-55 and 59 under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential elements, namely, a “structure to provide ‘substrate treatment.’” In response, as noted above, Applicants have amended independent Claim 53 to recite a “chemical vapor deposition chamber.” Applicants submit that the skilled artisan would understand that a “chemical vapor deposition chamber” provides the necessary structure for “substrate treatment.” Consequently, Applicants submit that the rejection of Claim 53 under 35 U.S.C. § 112, second paragraph, is overcome.

Rejections Under 35 U.S.C. § 102

The Examiner has stated that “Claims 53-55, 59, 65, 68-69 and 71 as understood are rejected under 35 U.S.C. 102(b) as being anticipated by Bahng [U.S. Patent No. 5,199,483].” The Examiner also rejected Claims 65, 68-69 and 71 as being anticipated by both Hughes (U.S. Patent No. 5,181,556) and Kroeker (U.S. Patent No. 6,000,227). The Examiner stated that the recitation of “for high temperature treatment of substrates” in independent Claim 53 and the recitation of “supporting a substrate ... at a substrate processing position” in independent Claim 65 were not given patentable weight. Among other things, the Examiner stated that this functional language was narrative in form and did not provide sufficient structure for “treatment.”

Applicants respectfully traverse the rejections.

Applicants note initially, however, that, to expedite prosecution of the instant Application, independent Claims 53 and 65 have amended. These claims now each recite “a chemical vapor deposition chamber,” rather than simply a “chamber.” Applicants submit that the skilled artisan would understand that a “chemical vapor deposition chamber” is equipped for performing chemical vapor deposition processes.

In contrast, Applicants submit that neither Bahng, Hughes nor Kroeker teach a “chamber” having a position within it for cooling, where the substrate is spaced “between about 0.2 mm and 3.0 mm” from a heat or thermal exchange member and where the “chamber” is a “chemical vapor deposition chamber.” Bahng, for example, teaches a *dedicated* cool down chamber to increase the “throughput of an associated *multi-chamber* semiconductor wafer processing system.”

Bahng, Col. 2, lines 39-43 (emphasis added). Thus, the thermal exchange member of that reference does not have a substrate cooling position within the process chamber; rather, the thermal exchange member is located in a chamber separate from the process chamber. Likewise, Hughes also teaches a "substrate cooling station" that is separate from the processing chamber. See Hughes, Col. 4, lines 41-43. Kroeker teaches a "wafer cooling system built into the transfer chamber" (Kroeker, Col. 2, lines 32-35), while distinguishing process chambers from transfer chambers, which hold the substrate for transport from one process chamber to another process chamber. As such, Applicants respectfully submit that neither Bahng, Hughes nor Kroeker teach a "chemical vapor deposition chamber" having a cooling position within it where the substrate is spaced "between about 0.2 mm and 3.0 mm" from a heat or thermal exchange member, as recited by independent Claims 53 and 65. Consequently, Applicants respectfully submit that neither Bahng, Hughes nor Kroeker anticipate Claims 53 and 65.

Nevertheless, Applicants note that functional language can merit patentable weight in an apparatus claim. For example, the Court in *In re Venezi*, 189 U.S.P.Q. 149 (CCPA 1976) found that a claim reciting "a pair adapted to be fitted over the insulating jacket of one of said cables" provided a clear structural limitation, rather than being a statement of intended use lacking patentable weight. In particular, the Court stated that "[r]ather than being a mere direction of activities to take place in the future, this language imparts a structural limitation to the sleeve. Each sleeve is so structured or dimensioned that it can be fitted over the insulating jacket of a cable." Similarly, in the instant case, the "chamber" recited in Claims 53 and 65 is so equipped that it allows "for high temperature treatment of substrates" and "supporting a substrate ... at a substrate processing position," respectively. Thus, Applicants respectfully submit that the above-quoted limitations merit patentable weight. As such, Applicants submit that neither Bahng, Hughes nor Kroeker teach a "chamber" with the functionality recited in Claims 53 and 65. Consequently, Applicants submit that, for this reason also, independent Claims 53 and 65 are not anticipated by the art of record.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected Claims 72-76 under 35 U.S.C. § 103(a) as being unpatentable over Ohmine et al. in view of Bahng. The Examiner has stated that "Ohmine et al. discloses all the claimed limitations except for a heat exchange member" and that Bahng satisfies this deficiency.

Applicants respectfully traverse the rejections.

Applicants note that amended independent Claim 72 recites "a chemical vapor deposition chamber" with a "movable substrate support structure" that supports a substrate at both a "substrate treatment position" and a "heat exchange position." As discussed above, however, Bahng does not teach a "chemical vapor deposition chamber" nor does Bahng teach a reactor having a "movable substrate support structure" capable of supporting a substrate during both thermal exchange and substrate treatment. Consequently, Applicants respectfully submit that Bahng does not make up the deficiencies of Ohmine et al. and, as such, Claim 72 is not obvious in view of the combination of Ohmine et al. and Bahng.

Accordingly, Applicants submit that the pending claims are allowable over the art of record. Applicants have not addressed the further anticipation and obviousness rejections of dependent claims as being moot in view of the amendments and remarks herein. However, Applicants expressly do not acquiesce in the Examiner's findings not addressed herein. Indeed, Applicants submit that the dependent claims recite further novel and non-obvious features of particular utility.

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CONCLUSIONS

In view of the foregoing remarks, Applicants submit that the application is in condition for allowance and respectfully request the same. If some issue remains that the Examiner feels may be addressed by Examiner's amendment, the Examiner is cordially invited to call the undersigned for authorization.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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